

**LaserMemory**

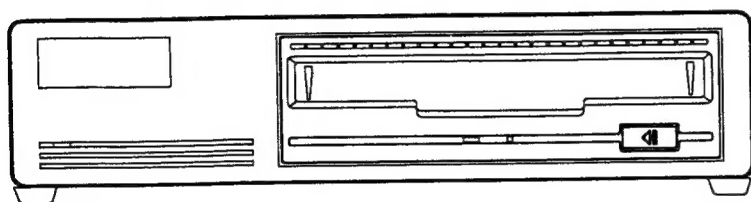
# DE-SH7101

書き換え／追記両用型光ディスクドライブ・サブシステム

MULTIFUNCTIONAL OPTICAL DISK DRIVE SUBSYSTEM

SYSTEME AUXILIAIRE D'UNITE DE DISQUE OPTIQUE MULTIFONCTIONNELLE

MULTIFUNKTIONALES OPTISCHES DISKETTENLAUFWERK UNTERSYSTEM



日本語

English

Français

Deutsch

お買いあげいただき、まことにありがとうございます。お使いになる前に、この取扱説明書を必ずお読みください。お読みになった後は、後日お役に立つこともありますので、保証書などと共に大切に保管してください。

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Thank you for buying this Pioneer product.  
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference. In

some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

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## IMPORTANT! SAFETY INSTRUCTIONS

1. **READ INSTRUCTIONS** — All the safety and operating instructions should be read before the appliance is operated.
2. **RETAIN INSTRUCTIONS** — The safety and operating instructions should be retained for future reference.
3. **HEED WARNINGS** — All warnings on the appliance and in the instructions should be adhered to.
4. **FOLLOW INSTRUCTIONS** — All operating and use instructions should be followed.
5. **CLEANING** — Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **WATER AND MOISTURE** — Do not use this product near water.
7. **ACCESSORIES** — Do not place this product on an unstable cart, stand, or table. The product may fall and be seriously damaged.
8. **VENTILATION** — Slots and openings in the cabinet and back or bottom are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. They should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed in a built-in installation unless proper ventilation is provided.
9. **POWER SOURCES** — This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
10. **Plug** — This product is equipped with a wired grounding type plug (a plug having a third (grounding) pin). This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
11. **POWER-CORD PROTECTION** — When unplugging the apparatus, pull on the plug — not on the cord. Do not handle the cord or plug with wet hands. Doing so could cause an electric short or shock. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
12. **OVERLOADING** — Do not overload wall outlets and extension cords as this can result in fire or electric shock.
13. **OBJECT AND LIQUID ENTRY** — Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
14. **CONDENSATION** — Moisture will form in the operating section of the product and the product's performance will be impaired if the product is brought from cool surroundings into a warm room or if the room temperature rises suddenly. To prevent this, let the product stand in its new surroundings for about an hour or two before switching it on, or ensure that the room temperature rises gradually.
15. **SERVICING** — Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. **DAMAGE REQUIRING SERVICE** — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power cord or plug is damaged.
  - b. If liquid has been spilled, or objects have fallen into the product.
  - c. If the product has been exposed to rain or water.
  - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
  - e. If the product has been dropped or the cabinet has been damaged.
  - f. When the product exhibits a distinct change in performance — this indicates a need for service.

### Information to User

Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

**CAUTION:** Be sure to use the shielded SCSI cables when connecting this equipment to other devices.

**FOR ENGLAND**

*"This product complies with the Radio Interference requirements of the EC (European Community) Directive 87/308/EEC."*

**FOR GERMANY**

*"Dieses Produkt entspricht den Funkentstörvorschriften der EG (87/308/EEC)."*

**FOR FRANCE**

*"Cet article est conforme aux prescriptions de la directive communautaire de la CE nr. 87/308/EEC (arrêté du 16/8/89)."*

**FOR ITALY**

*"Questo apparato è conforme al D.M. 13 Apr. 89 (Dir. 87/308/CEE)."*

**FOR SPAIN**

*"Este aparato cumple las normas para Interferencias de Radio establecidas por la Directriz de la CE (87/308/EEC)."*

**FOR PORTUGAL**

*"Este produto satisfaz às exigências das normas sobre interferências de rádio da Comunidade Económica Europeia (87/308/EEC)."*

**FOR BELGIUM AND NETHERLANDS**

*"Dit produkt voldoet aan de radio-ontstoringsvoorschriften van de Richtlijn van de EG Raad (87/308/EEC)."*

**FOR DENMARK**

*"Dette produkt overholder det gældende EF-direktive no. 87/308/EEC vedr. radiostøj."*

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**[For Canadian model]**

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

**[Pour le modèle Canadien]**

L'interférence, radioélectrique générée par cet appareil numérique de type B ne dépasse pas les limites énoncées dans le Règlement sur les perturbations radioélectriques, section appareil numérique, du Ministère des Communications.

**CAUTION: USE OF CONTROL OR ADJUSTMENT OR PERFORMANCE PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**  
**CAUTION: USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARDS.**

## [FOR EUROPEAN AND U.K. MODELS]

The following caution label appears on your player.

Location: bottom of the player

### CAUTION

This product contains a laser diode of a higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of this product.  
 Refer all servicing to qualified personnel.

**CLASS 1 LASER PRODUCT**  
**LASER KLASSE 1**

ORW1129

## FEATURES

- ① This slim, compact design offers high-capacity filing in a convenient format. It also enables recording and playback on both rewritable and WORM disks.
- ② Fast access.
- ③ High data transfer rate.
- ④ Bit error rate less than  $10^{-12}$  for outstanding reliability.  
 Through the use of PIONEER's low error rate medium and powerful error correction scheme, bit error rate is exceptionally low.

## PREPARATION

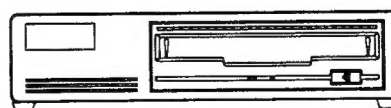
### (1) Setting up.

Set the product on a level surface as shown in the figure. This product can be positioned vertically or horizontally, but in either case, be sure that it is oriented in the proper direction (see diagram). Please note that if the product is subjected to vibration, it might not yield adequate performance.

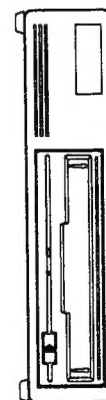
### CONFIRMATION OF ACCESSORIES

The following accessories are supplied with this product.

- ① Power cord ..... 1
- ② Terminator module ..... 1
- ③ Plug converter ..... 1
- ④ Operating instructions ..... 1
- ⑤ Manual eject screwdriver ..... 1



Horizontal setting



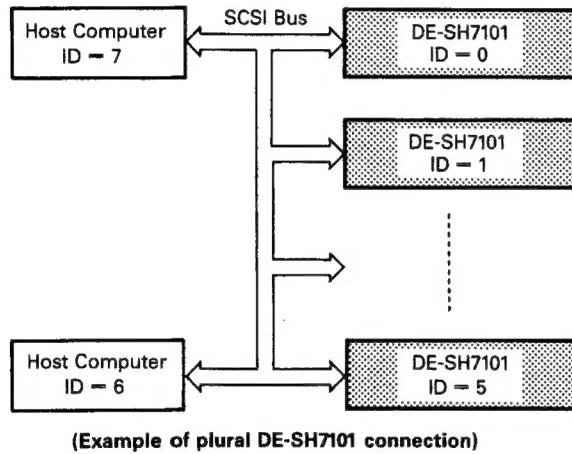
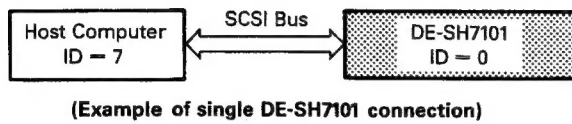
Vertical setting

## PREPARATION

### Procedure for change when connecting a daisy chain configuration, and changing SCSI target ID.

This product can be linked to a maximum of eight units, including a plural number of host computers, by Daisy Chain connection.

#### Connection Examples



#### 1. How to change SCSI ID (See figure 1)

Set the rear panel SCSI ID switch ① to your desired ID. (See SCSI ID switch explanation below.)

##### NOTE:

- Sum total SCSI cable length should not exceed 6 meters. (SCSI cable is sold separately.)
- Be sure not to assign the same target ID number to more than one unit.

#### 2. SCSI ID switch ① explanation (See figure 2)

- Set the SCSI ID on this unit.
- Press the  $\oplus$  button to increment the SCSI ID (0, 1, ..., 7). Press the  $\ominus$  button to decrement the SCSI ID (7, 6, ..., 0). (Be sure to set to a SCSI ID between 0 and 7.)

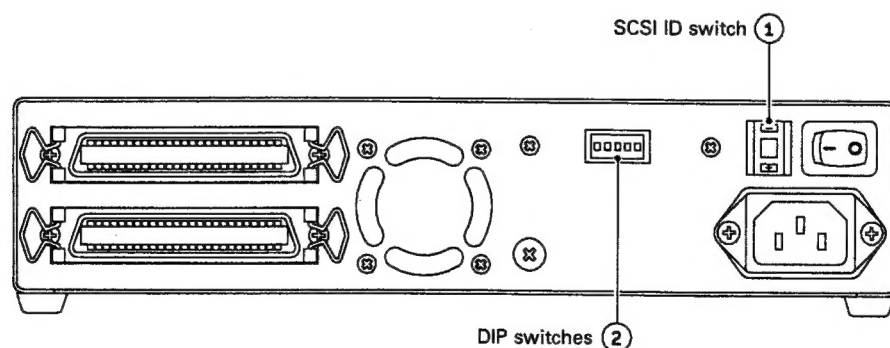
##### NOTE:

All units are set to "0" at the factory.

[Figure 2]

#### 3. Terminator Resistance On/Off

When connecting this unit to a SCSI cable terminal, plug the supplied terminator module into the rear panel interface connector to switch on.



[Figure 1]

#### 4. DIP switch ② explanation (See figures 3 and 4)

##### A. Parity check (bit 1)

This determines whether or not a parity check is performed on this unit's SCSI data bus. When it is set to off, a parity check is performed.

**B. Reserve (RESERVED, bit 2):** Always use with it off.

**C. Reserve (RESERVED, bit 3):** Always use with it off.

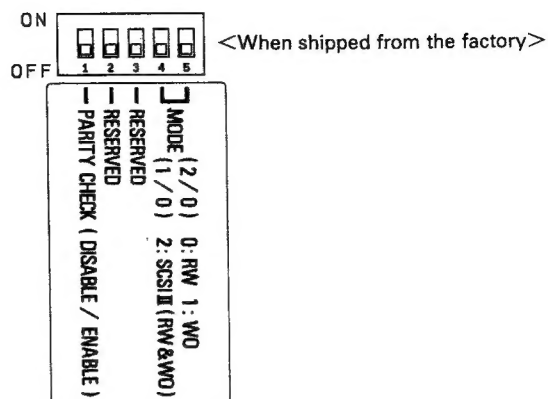
##### D. Mode switching (MODE, bits 4 and 5)

The unit refers to this bit setting to determine the operation mode to which the unit will be set after switching on the power or performing SCSI RESET (see figure 4).

- MODE 0 (Rewritable mode)
- MODE 1 (WORM mode)
- MODE 2 (SCSI II mode, Rewritable and WORM)
- MODE 3 Reserved

##### NOTE:

- Mode switching is also possible by SCSI commands.
- If there are no special instructions for bits 1 to 3 in the software instruction manual, use the factory settings (refer to figure 3).

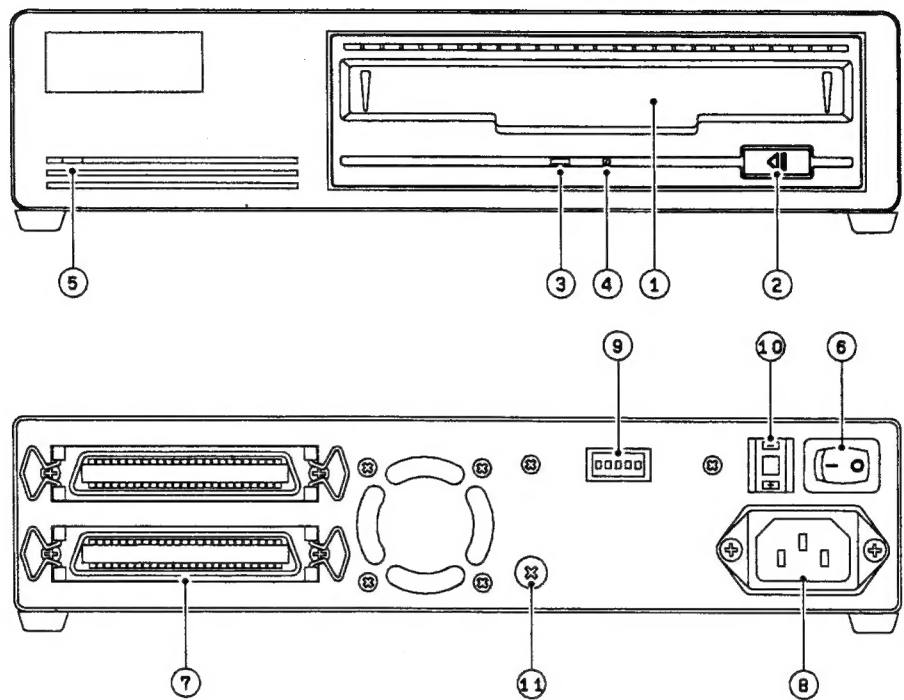


[Figure 3]

MODE	Switch Setting	
0		
1		
2		
3		

[Figure 4]

# NAMES OF PARTS AND THEIR FUNCTIONS



**① Disk cartridge insertion door**

Insert the disk cartridge into the door and gently push in until it loads.

**② Eject switch**

Press to eject the cartridge.

**③ LED Indications**

LED display indicates for each condition are as follows.

Mode	0	1	2
Drive Condition			
When there is no disk	Green (flashing)	Yellow (flashing)	Green (flashing)
When a Rewritable disk is loaded	Goes out	Yellow (flashing)	Goes out
When a WORM disk is loaded	Green (flashing)	Goes out	Goes out
BUSY	Green (lights)	Yellow (lights)	Green (lights)
Heat Alarm has occurred	Orange (flashing)	Orange (flashing)	Orange (flashing)

**④ Screwdriver hole for manual eject**

When you want to manually eject the cartridge from the drive, insert the supplied screwdriver into the manual eject screwdriver hole, and while pressing, turn the screw counterclockwise about 30 times, and remove the cartridge.

**NOTE:**

When performing manual eject, be sure to switch power OFF.

**⑤ Power indicator**

This lights when power is switched ON.

**⑥ Power switch**

This switches power to the main unit ON and OFF.

**⑦ Interface connector**

Two SCSI amphenol 50 P connectors are supplied for daisy chain configuration connections.  
(Either one of the two connectors can be used)

**⑧ Power connector**

Use the supplied AC power cord.  
If necessary, use supplied plug converter to match the shape of the wall socket.

**CAUTION:** AC power cable must be shielded for Radio Frequency Interference Suppression.

**⑨ DIP switches**

These determine various status and parameter settings such as operation mode.

**⑩ SCSI ID switch**

This determines the SCSI ID setting.

**⑪ GND terminal**

When earthing this unit, use this terminal.

## USAGE PRECAUTIONS

1. Do not expose the subsystem to shock or vibration during operation.
2. Do not connect or disconnect SCSI cable while the power is ON.
3. Do not turn the power switch OFF or unplug the unit during process execution.
4. Use only specified optical disks.
5. Do not install this product into another maker's product, or install another maker's unit into this product.  
This product is not guaranteed if used under the above mentioned circumstances. Both products might be damaged irreparably.
6. Be sure to unload the cartridge when moving or transferring this product. The cartridge may be damaged beyond repair by strong jolts, etc.

**WHEN NOT IN USE, BE SURE TO EJECT THE DISK CARTRIDGE. IF YOU LEAVE IT IN THE MAIN UNIT, DIRT AND DUST MAY ACCUMULATE, LEADING TO FAULTY OPERATION.**

## TROUBLESHOOTING

If you think the product has malfunctioned, check the following points. Gross mistakes in operation of the product can cause malfunctions. Causes could also lie outside the product itself. Be sure to also check all other equipment being used with the product.

Symptom	Checkpoints
Cartridge cannot be loaded. (Go over the checkpoints carefully since pushing the cartridge forcefully can also cause breakdown.)	<ul style="list-style-type: none"><li>• Has another cartridge already been loaded?</li><li>• Has the cartridge been inserted in the proper direction?</li><li>• Is the power switch at "ON"?</li><li>• Has the power cord been connected to the outlet securely?</li><li>• Disconnect the SCSI cable. Can the cartridge be loaded when power is supplied with a single DE-SH7101? If so, check the host system and/or the SCSI cable.</li></ul>
Cartridge is immediately ejected after being inserted.	<ul style="list-style-type: none"><li>• Are you using a specified optical disk?</li></ul>
Cannot perform write or read.	<ul style="list-style-type: none"><li>• Has the write protect switch of the cartridge been set for "Read Only" status?</li><li>• Has the cartridge been loaded properly?</li><li>• Are you using a specified disc?</li><li>• Has the SCSI cable been connected securely?</li><li>• Are standard products being used with the SCSI cable?</li><li>• Has the drive been placed on a level surface?</li><li>• Is there error or overlap of SCSI target ID?</li><li>• The trouble could be caused by condensation forming on the optical parts and/or the disk. Allow the product to stand idle for about 1 to 2 hours, then try using it again.</li></ul>

If the trouble cannot be rectified even after exercising the checks listed above, ask your nearest PIONEER authorized service center to check your product.



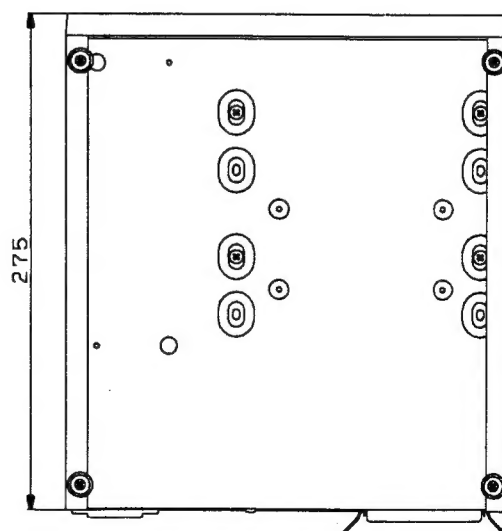
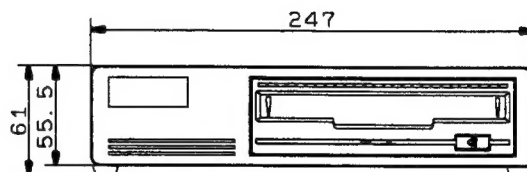
# SPECIFICATIONS

- Loading system: Front loading
- Interface: SCSI\*<sup>1</sup>
- Rotational speed: 2400 rpm, CAV
- Bit error rate: Less than  $10^{-12}$  (when using PIONEER optical disks DEC-702 and DC-502A)
- Power requirements: AC 100—240 V, 50/60 Hz
- Power consumption: 46 W max
- Dimensions: Refer to the figure of dimensions.
- Weight: 3.5 kg
- Available positioning: Horizontal
- Environmental conditions
  - Operating temperature: +5°C ~ +40°C (+41°F ~ +104°F)
  - Operating humidity: 10 % ~ 80 % RH (no condensation)
  - Storage temperature: -20°C ~ +50°C (-4°F ~ +122°F)
  - Storage humidity: 10 % ~ 90 % RH (no condensation)

\*<sup>1</sup>SCSI ..... Small Computer System Interface

• Specifications and design are subject to possible modifications without notice due to improvements.

Drawing showing the external features of the DE-SH7101.



## MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.

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